

Patent Claims

1. Gum base granules comprising at least one biodegradable polymer.
2. Gum base granules according to claim 1,
5 wherein said gum base comprises substantially solely at least one biodegradable polymer.
3. Gum base granules according to claim 1 or 2,
wherein at least one of said biodegradable polymers comprises a polyester produced
10 through reaction of at least one alcohol or derivative thereof and at least one acid or derivative thereof.
4. Gum base granules according to any of the claims 1 to 3,
wherein at least one of said biodegradable elastomers comprises said polyester
15 obtained by polymerization of at least one cyclic ester.
5. Gum base granules according to any of the claims 1 to 4,
wherein the gum base has a water content of less than 5.0%, preferably less than
1.5% by weight of the gum base.
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6. Gum base granules according to any of the claims 1 to 5,
wherein the gum base has a water content of less than 1.0%, preferably substantially
0% by weight of the gum base.
- 25 7. Gum base granules according to any of the claims 1 to 6,
wherein the size of the gum base granules are within the range of 0.01mm · 0.01 mm
to 2mm · 2mm, preferably within the range of 0.1mm · 0.1mm to 1.0 mm · 1.0mm.
8. Gum base granules according to any of the claims 1 to 7,
30 at least one biodegradable polymer in the amount of about 1% to about 100% by
weight of the gum base.

9. Gum base granules according to any of the claims 1 to 8,
wherein said granulated gum base comprising at least one high molecular weight
elastomeric biodegradable polymer in an amount of about 0% to about 75% by
weight of said gum base.

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10. Gum base granules according to any of the claims 1 to 9,
wherein the molecular weight of said at least one high molecular weight elastomeric
biodegradable polymer is from about 10000 g/mol to 800000 g/mol Mn.

10 11. Gum base granules according to any of the claims 1 to 10,
wherein said granulated gum base comprising at least one low molecular weight
elastomer solvent in an amount of about 0% to about 90% by weight of said gum
base.

15 12. Gum base granules according to any of the claims 1 to 11,
wherein the molecular weight of said at least one low molecular weight elastomer
solvent is from about 1000 g/mol to 50000 g/mol Mn.

13. Gum base granules according to any of the claims 1 to 12,
20 wherein gum base granules comprises sweetener in an amount of less than 50% by
weight.

14. Gum base granules according to any of the claims 1 to 13,
wherein the gum base is substantially free of lubricants, anti-adherents and glidants.

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15. Gum base granules according to any of the claims 1 to 14,
wherein the natural resins provide an improved and sticky texture of the gum base
when applied in chewing gum formulation.

30 16. Gum base granules according to any of the claims 1 to 15,
wherein said gum base is substantially wax free.

17. Gum base granules according to any of the claims 1 to 16,
wherein said gum base is substantially fat free.
18. Gum base granules according to any of the claims 1 to 17,
5 wherein said gum base comprises filler in an amount of about 0% to about 50% by weight of the gum base.
19. Gum base granules according to any of the claims 1 to 18,
wherein said gum base granules comprise active ingredients, at least a part of said
10 active ingredients been torn into the chewing gum forming granules or at least a part of the chewing gum forming granules previous to compression.
20. Gum base granules according to any of the claims 1 to 19,
wherein said gum base comprises synthetic resin in an amount of about 15% to about
15 99%, preferably about 15% to about 80% by weight of the gum base.
21. Gum base granules according to any of the claims 1 to 20,
wherein said gum base comprises emulsifiers and/or fats in an amount of about 10% to about 40% by weight of the gum base.
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22. Gum base granules according to any of the claims 1 to 21,
wherein said gum base comprises wax in an amount of about 2% to about 30% by weight of the gum base.
23. Gum base granules according to any of the claims 1 to 22,
25 wherein at least a part of the flavoring agents has been torn into the gum base or at least a part of the gum base previous to compression.
24. Gum base granules according to any of the claims 1 to 23,
30 wherein said at least one biodegradable polymer comprises at least one polyester obtained by polymerization of at least one compound selected from the group

consisting of cyclic esters, alcohols or derivatives thereof and carboxylic acids or derivatives thereof.

25. Gum base granules according to any of the claims 1 to 24,
 - 5 wherein said gum base granules comprise at least one non-biodegradable polymer.
26. Compressed chewing gum comprising gum base according to any of the claims 1 to 25.
- 10 27. Compressed chewing gum according to claim 26,
wherein at least a part of said chewing gum polymers are non-biodegradable.
28. Compressed chewing gum according to claim 26 or 27,
wherein said chewing gum granules are blended and compressed together with
15 chewing gum ingredients, preferably powdered chewing gum ingredients, such as
sweetener, flavor, fillers and emulsifiers.
29. Compressed chewing gum according to any of the claims 26 to 28,
wherein the water content is less than 5.0%, preferably less than 1.5% by weight of
20 the gum base.
30. Compressed chewing gum according to any of the claims 26 to 28,
wherein the water content is substantially 0%.
- 25 31. Compressed chewing gum according to any of the claims 26 to 30,
wherein said biodegradable gum base comprises at least two biodegradable
polymers.
32. Compressed chewing gum according to any of the claims 26 to 31,
30 wherein said biodegradable gum base granules are used together with conventional
non-biodegradable gum base granules.